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| 09/899,163      | 07/06/2001  | Ulrich Begemann      | P20906              | 9779             |

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EXAMINER

HASTINGS, KAREN M

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1731

DATE MAILED: 03/27/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09899163

Applicant(s)

Regumann et al

Examiner

HASTINGS

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on Jan 6, 2003.
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-35, 38, 40-44, 48-50 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-35, 38, 40-44, 48-50 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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**At least claims 1, 15-19, 22-24, 27, 28, 38, 40 and 48-50 are rejected under 35 U.S.C. 102(b)** as anticipated by WO 98/27279, or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 98/27279 as needed with Gordon, Jr et al.

WO '279 teaches two doctor blades being assigned to a rotating roll with a wash spray means 9 and a wiping element 11 in between the doctor blades. Note page 2 lines 8-12 lists that one may employ double doctors employing two blades to ~~press~~<sup>press</sup> rolls, pick-up roll, suction rolls and/or couch roll of the papermachine~~s~~<sup>s</sup>. It would have been immediately envisioned by one of ordinary level of skill in the art that such rolls may be grooved or blind bores. Thus the two doctors may be assigned to a rotating roll with grooves and/or blind bores since it is well known, for example only, that a suction roll, or a press roll, may have such a configuration. Indeed a suction roll always has grooves or bores, including blind bores. If even necessary, this is exemplified by Gordon, Jr. et al blind bores 21, 22 in a suction roll cover.

Page 3 of WO '279 describes in the first paragraph that a partial vacuum is created behind the doctor blade by the action of the roll passing the blade at high speed; thus an underpressure is hydrodynamically produced by these doctor blades.

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The only thing not explicitly taught in WO '279 is that the rear doctor "scrapes air off . . .". However this is an apparatus claim. The structure is shown and it is inherent that the rear doctor would be capable of scraping air off the rotating roll; at least to the same extent that a doctor blade such as in Figure 2 of applicants' drawings scrapes air off a rotating roll once a cleaning spray of water has been applied to it in between the doctor blade as also done in WO '279 (and as encompassed by many of these claims).

Thus no structural distinctions can be seen from the current claimed language over this reference WO 279. Any differences that may be gleaned are deemed to be prima facie obvious modifications of well known technical features - for example if WO '279 does not inherently disclose that the roll may be a grooved or blind bore roll, it would have been prima facie obvious since the use of grooves or blind bores for such rolls is a well known technical feature, as exemplified by Gordon, Jr. et al. Again, this would have been immediately envisioned to one of ordinary skill in the art since WO '279 discloses it may be used in any roll in a paper making machine including press rolls, pickup rolls, suction rolls and/or couch rolls, many of which are known to be grooved and/or blind bored.

*Claims 1-35, 38, 40-44 and 48-50 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over WO '279 as necessary*

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with Meschenmoser, further as necessary with Justus '694 and/or Justus '697.

WO '279 is applied as above. For completeness all claims are included. For example only, if it is not inherent that the spray 9 of WO '279 may be operated at the parameters set forth in claims 22-24, alternately it would have been prima facie obvious for one of ordinary skill in the art to optimize the pressure of the wetting/cleaning spray device.

With respect to claims 3+, Meschenmoser shows, especially at Figure 5, a device which has two scraper blades on a roll to enhance the cleaning effect. See column 8 lines 55-57. The "boundary layer doctor" of claim 3 encompasses the scraper blade 58 of Figure 5 in Meschenmoser - etc. as set forth on page 4 of the last Office action. Note spray 80 of Figure 3 reads on the cleaning device of claims 15, 17, 18 and 19; note the mechanical structural setup of the doctor blade with the housing beam 56 may be considered to be a housing with the cleaning device 80 surrounded by that beam 56/housing 56. Note with respect to claim 28 since both scraper blade 58 and scraper blade 60 may read on the two doctors 92 and 60 of Figure 5 which form with a portion of beam 56 a "housing" that seals off said surface of roll 36. With respect to claims 22-24, these merely set forth an operating pressure and it is deemed inherent that the structure is capable of being set at these operating pressures, that is the

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spray 80 of Meschenmoser would inherently be capable of admitting the water spray under the recited pressures.

If it is not inherent that the spray 28 of Meschenmoser may be operated at the parameters set forth in claims 22-24, it clearly would have been prima facie obvious for one of ordinary skill in the art to optimize the pressure of the cleaning device. Furthermore, optimizing the distances as set forth in claims 5-7 would have been prima facie obvious to one of ordinary skill in the art.

With respect to other dependent claims, the use of traversing sprays, rotatable sprays combined blowing and suction, etc. are all very well known technical features to one of ordinary skill in the art in cleaning a press roll or felt and as such would have been prima facie obvious additions/modifications to the cleaning device of Meschenmoser. Furthermore, the use of suction after a press (re claim 8) is very well known to one of ordinary skill in the art and for example at Figure 2 of Meschenmoser the use of a suction device anywhere along the length of travel of the felt after it leaves the press 18, 16 would read on this claim as currently worded.

For these claims WO '279 is merely relied upon to exemplify that it is well known to apply double doctor blades to any kind of roll in a paper making machine including a grooved or blind bore roll; that is it would have been prima facie obvious to

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apply the set up of Meschenmoser on a grooved or bored (suction or not) guide roll or press roll in order to obtain the known advantages of cleaning same.

As even necessary, Justus '694 and/or Justus '697 are applied for the reasons set forth on pages 7-8 of the last Office action to further exemplify that it is well known to clean a groove or blind bore roll surface with scraper means, brushes, air jets and water jets. See Figure 1 of Justus '694 and see column 11 lines 25-57 of Justus '697. It would have been prima facie obvious to use the doctor blade cleaning spray doctor blades, cleaning spray set forth in the applied references above to be well known for cleaning various paper machine rolls to clean a grooved roll for the known advantages of cleaning a roll with the combination of two doctor blades etc. as taught in the references applied above. Note once one applies a double doctor blade cleaning apparatus as is well known to any appropriate roll to be cleaned, such as a grooved roll, then one inherently obtains many of the features set forth in these claims. That is since the unit for evening out the amount of water is the doctor blade, clearly the doctor blade would inherently perform this function. Furthermore, the use of an air jet to aid in cleaning a grooved roll is known as exemplified by 13C of Justus 694. With respect to claims 45-47, it is well known that a doctor blade applied against a fast moving roll, and it is very well

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known that press rolls in a paper making machine are very fast moving rolls will produce a foil type suction under pressure, as already explicitly set out in WO 279.

Thus the use of a well known foil doctor would have been immediately envisioned/encompassed by the teachings of the applied references.

Thus again it would have been prima facie obvious to use well known double doctor blade combinations with cleaning spray/suction for the well known advantages of cleaning paper machine rolls in order to have cleaned a groove roll.

Furthermore, optimizing the distances as set forth in claims 5-7 would have been prima facie obvious to one of ordinary skill in the art especially in the absence of any criticality or unexpected results from the recited dimensions.

***Claims 1-35, 38, 40-44 and 48-50 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over DE '800 and DE '958 with Filzen with as necessary WO '279.***

Alternately one can view the rejection by looking at DE '800 which in combination with Figure 11 of DE '958 both exemplify the well known use of a doctor blade/scrapper at the beginning of the housing on a press roll and likewise a doctor blade scrapper on the end of the housing of the press roll with various cleaning devices in between. Figure 11 of DE '958 clearly show two doctor blades 82 in Figure 11 and a foil blade 128; in Figure 12 two



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foil baldes 128 are shown, each shows cleaning a roll surface with suction applied to an enclosed housing around the roll that is sealed off with the doctor blades 82 in Figure 11 and by a doctor blade 82 and seal means 100 in Figure 12 with two additional foil blades inbetween.

Note DE '800 teaches it may be a flexible extended nip press roll. It is well known that such rolls have a flexible blanket shell that may be grooved as set forth in Filzen et al. column 5 lines 12-18.

Thus to have applied two doctor blades, one at the beginning of a housing and one at the end of a housing as exemplified in Figure 11 of DE '958 on a flexible roll shell as exemplified in DE '800 that may be grooved (as is a well known technical feature for these flexible roll shells as exemplified in Filzen et al.) would have been prima facie obvious in order to obtain the well known advantages of cleaning the roll with doctor blades.

In this rejection WO '279 is merely applied to exemplify, as set forth on page 3 of WO '279, that a suction foil effect inherently occurs as a high speed rotating roll passes over the doctor blade. Again, whether a doctor blade scrapes air is deemed to be an inherent capability of the doctor blade(s) of the references since they are being used for the same/similar purposes of cleaning a roll in similar circumstances as appears in the instant case.

*Claims 9-14 are also rejected under 35 U.S.C. 103(a)* as being unpatentable over the references as applied to the claims above, and further in view of Ely, Sr.

Ely, Sr. is cited to exemplify that the use of a suction guide roll 20 following a press nip formed at 16, 17 is well known in the art and is exemplified throughout Figures 1-4 of Ely, Sr. This is merely cited to exemplify that it would have been immediately envisioned by one of ordinary skill in the art to use the cleaning device on any appropriate felt guide roll including a felt suction roll such as shown in Figures 1-4 of Ely, Sr.

*Claims 15-28 are also rejected under 35 U.S.C. 103(a)* as being unpatentable over the references as applied to the claims above, and further in view of Boeck.

Boeck is applied for similar reasons set forth on pages 6-7 of the last Office action in that it would have been prima facie obvious to use the two doctor blades of either WO '279 on a grooved or bored roll as suggested by WO '279, Justus, etc. or to use the two doctor blades of Boeck on such a grooved or bored roll. Boeck additionally provides and exemplifies the well known features of a suction globe 91 surrounding a spray cleaning means. Boeck shows two doctor blades arranged on behind each

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other to clean a roll with a cleaning spray in between and also discloses a suction globe 91 surrounding the spray cleaning means. (Compare for example only Figure 5 of Boeck et al. to Figures 2 and 3 of the instant case). For example only, see first blade 82, second blade 84 of Figure 5 with cleaning and suction device located therebetween and a further cleaning device at 88, etc. Note with respect to claims 27 and 28, this reads on Figure 2 of Boeck which shows a beam/housing with a doctor blade at either end of the housing to close off the surface by the two doctors.

Note for example only, column 3 lines 5-20 disclose the alternatives of using rotating jets over the entire roll width or rotating jet units that may be transversely moved.

Thus to have used these known technical features exemplified in Boeck et al in cleaning any papermaking roll, including grooved or bored rolls, would have been prima facie obvious to one of ordinary skill in the art in order to obtain their known cleaning advantages.

*The prior art made of record* and not relied upon is considered pertinent to applicant's disclosure.

Kivimaa et al is cited to exemplify that it is well known to have a suction effect behind a cleaning doctor blade, see abstract last two sentences.

*Applicants' arguments filed January 6, 2003 have been fully considered* but they are not deemed to be persuasive.

Applicants' main argument is that there was no teaching of two doctors assigned to a roll with grooves and/or blind bores, one which scrapes water, the second scrapes air and at least one produces an underpressure. However all of these limitations (newly added) have now been addressed above in the new rejections. WO '279 clearly teaches at page 3 that it is well known that an underpressure is hydrodynamically produced by a high speed roll going past the doctor blade. WO '279 also teaches that double doctor blades may be on suction and/or press rolls and/or couch rolls, all of which are known may be grooved and/or blind bored. That a doctor scrapes air off of the rotating roll would be something that a doctor blade would be inherently capable of functioning to do this, as set forth in the rejections above.

WO '279 on page 4 also references cleaning the roll pores which again clearly exemplifies that it would have been known and certainly prima facie obvious to apply the doctor blades and cleaning devices to rolls having grooves and/or blind bores, as certainly at least bores would be considered and/or similar to pores.

Applicants' amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P.

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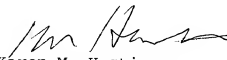
§ 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

*Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hastings whose telephone number is (703) 308-0470. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5 P.M.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on (703) 308-1164. The fax phone number for this Group is (703) 305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0651.

  
Karen M. Hastings  
Senior Primary Examiner  
Art Unit 1731

March 20, 2003

3/2003